

General Information Regarding Avian Influenza (H5N1) and an Update on the Current Outbreak

Updated May 5, 2006

What is avian influenza or bird flu?

Certain influenza viruses affect different animal species. Birds infected with a flu virus are said to have developed avian influenza. Avian influenza occurs naturally among birds, but usually does not affect humans. In 1997, humans were first discovered to have developed avian influenza in Hong Kong.

What are the symptoms of avian influenza in humans?

Since 1997, humans have been reported with infections from several different versions of avian influenza or bird flu. All avian influenza is found to occur in the influenza type A virus; however there are different subtypes or versions of avian influenza type A virus (i.e. H5N1, H7N3). The symptoms caused by avian influenza in humans may depend upon the subtype of type A virus acquired. Symptoms range from typical influenza-like illness (fever, cough, sore throat, muscle aches) to eye infections, pneumonia, severe respiratory diseases and other severe and life-threatening complications.

How is avian influenza spread and what is the risk to humans?

Birds that are infected with avian influenza can spread the virus in their nasal secretions, saliva and feces. Most instances of avian influenza infection in humans occurred when humans had contact with infected birds or contaminated surfaces. It is thought that a few cases of human-to-human transmission have occurred with a certain subtype of the avian influenza virus (H5N1). The risk of humans developing bird flu is low for several reasons. First, avian influenza viruses usually do not cause infection in humans. Second, one would need to have contact with infected birds, surfaces contaminated with excretions from infected birds or possibly close contact with an infected person.

What is an avian influenza (H5N1) virus?

Influenza A, (H5N1) virus is an influenza A subtype that primarily infects birds. Since 1997, influenza A (H5N1) has been reported to infect humans in rare instances.

What is the current situation with the H5N1 virus outbreak?

Starting in late 2003, eight countries in Asia reported H5N1 outbreaks in their poultry (Cambodia, China, Indonesia, Japan, Laos, South Korea, Thailand and Vietnam). By March 2004, the outbreak appeared to be controlled. However, new H5N1 outbreaks were reported in June 2004 in Asia among poultry (Cambodia, China, Indonesia, Malaysia, Thailand and Vietnam). Human infections with H5N1 have also been reported in several of those countries (Vietnam, Thailand, Cambodia, and Indonesia) as well as Africa and the Middle East. Since then, H5N1 infections among birds have spread to other countries in Africa and Europe. You can review the current status of the outbreak at <http://www.pandemicflu.gov>.

What is the risk of H5N1 infection for people in the United States?

The H5N1 virus primarily infects birds, though humans have been found to become infected in rare instances. No evidence of the H5N1 virus has been found in the United States (U.S.) among poultry or humans. Risk of infection for people in the U.S. remains

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low, however for those traveling to countries with current H5N1 outbreaks, the risk of infection increases. Those traveling to international areas affected by H5N1 avian influenza should visit the Center for Disease Control and Prevention (CDC) web site to review recommendations and information regarding disease risk at <http://www.cdc.gov/travel>.

If traveling to an H5N1 affected country, consider the following recommendations:

- Avoid all direct contact with poultry (except for cooked items) and avoid places such as poultry farms and bird markets and avoid handling surfaces contaminated with poultry secretions and feces.
- Remember to practice careful and frequent hand washing with soap and water or waterless alcohol-based gels when soap is not available and your hands are not visibly soiled.
- After returning from an affected country, monitor your health for 10 days. If you become ill with a fever and develop a cough or difficulty breathing or develop any illness during the 10 days after your return, contact a health care professional. Before your office visit, inform the provider about your travel including the symptoms, country(ies) visited and if you had direct contact with poultry.

What is the treatment recommended for avian influenza?

The U.S. Food and Drug Administration has approved four antiviral medications (amantadine, rimantadine, oseltamivir, and zanamivir) for treating and/or preventing human influenza infection. Sometimes influenza strains become resistant to an antiviral medication, thus making the treatment ineffective. Studies of the current H5N1 virus have shown resistance to two of the antiviral drugs (amantadine and rimantadine). Drug resistance patterns in the H5N1 virus will continue to be monitored.

Is there a human vaccine currently available for avian influenza (H5N1)?

There is no vaccine available at this time for protection from the H5N1 virus (or any other type of avian influenza). Currently several studies are ongoing to develop a vaccine to protect humans from the H5N1 virus.

What should I do to protect myself from avian influenza?

Consider following many of the same recommendations for protecting oneself from the human influenza virus including:

- getting vaccinated with the human influenza vaccine every year (probably will not prevent illness from H5N1 virus, however it will prevent mixing of genetic materials between human and avian influenza viruses and reduce the risk of human to human transmission)
- wash your hands frequently
- cover your mouth when you cough or sneeze

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- stay home from work, school and large gathering places if you feel ill with influenza-like illness

Those looking for recommendations for travel to H5N1 affected countries should refer back to the “What is the risk of H5N1 infection for people in the United States?” question. Also, the federal and state governments have set up pandemic influenza planning websites at <http://www.pandemicflu.gov> and <http://www.vdh.virginia.gov/pandemicflu/> complete with checklists for individuals and families.

Should I consider stockpiling treatment in the event that avian influenza (H5N1) arrives in the U.S.?

The federal government is in the process of stockpiling antiviral treatment for the public in preparation for a possible outbreak of H5N1 virus in the U.S. ***Individuals are advised not to stockpile their own treatment (such as the antiviral medication, Tamiflu®) for protection against avian influenza (H5N1).*** Citizens that consider stockpiling may find that:

- there are no specific instructions provided regarding when or how long to take the medication
- improper administration of the treatment for the wrong disease may occur
- widespread misuse of an antiviral (or antibiotic) can lead to the emergence of drug resistance, thus eliminating this as a viable option for treatment
- improper hoarding of medication will limit the amount of the medicine available for those who truly need the medicine during this flu season.

Therefore, improper use of antiviral (or antibiotic) treatment not only presents a risk to you, but also to your family and community.